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Kondo

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(54) **DRIVING CIRCUIT FOR TOY CAR**

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(73) Assignee: **Kondo kagaku Co., Ltd.**, Tokyo (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(30) **Foreign Application Priority Data**

Aug. 10, 1998 (JP) 10-236593

(51) **Int. Cl.**⁷ **A63H 30/00**; A63H 30/04

(52) **U.S. Cl.** **446/454**; 446/456; 446/484;
463/62

(58) **Field of Search** 446/454, 456,
446/457, 461, 462, 484; 463/6, 62

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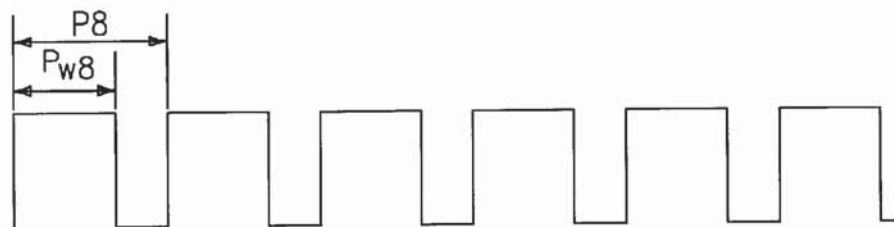
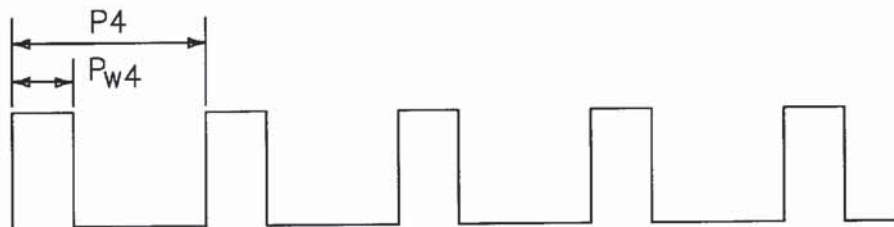
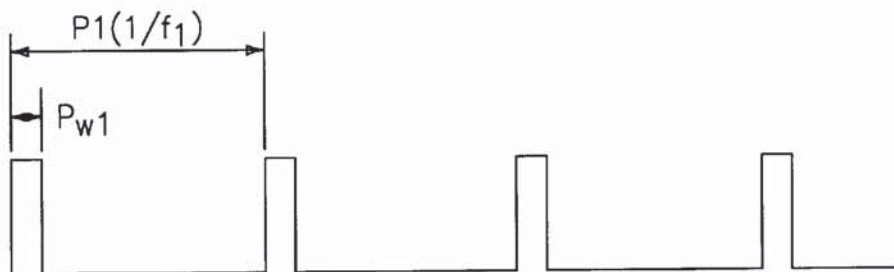
Primary Examiner—D. Neal Muir

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(57) **ABSTRACT**

The invention relates to a speed controller able to change a pulse frequency and a pulse width of a pulse signal to control a driving motor. This device is able to change the pulse frequency during the run of the toy car which adjusts the torque of the driving motor in response to the revolution number of the driving motor. The speed controller adjusts the pulse frequency to be large when the pulse width is small, while the pulse frequency is small when the pulse width is large.

20 Claims, 6 Drawing Sheets



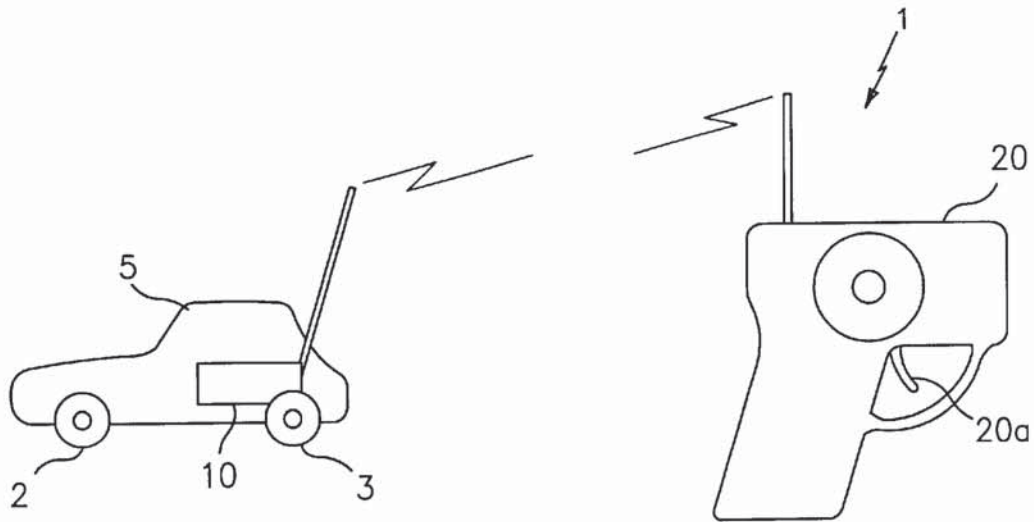


FIG. 1

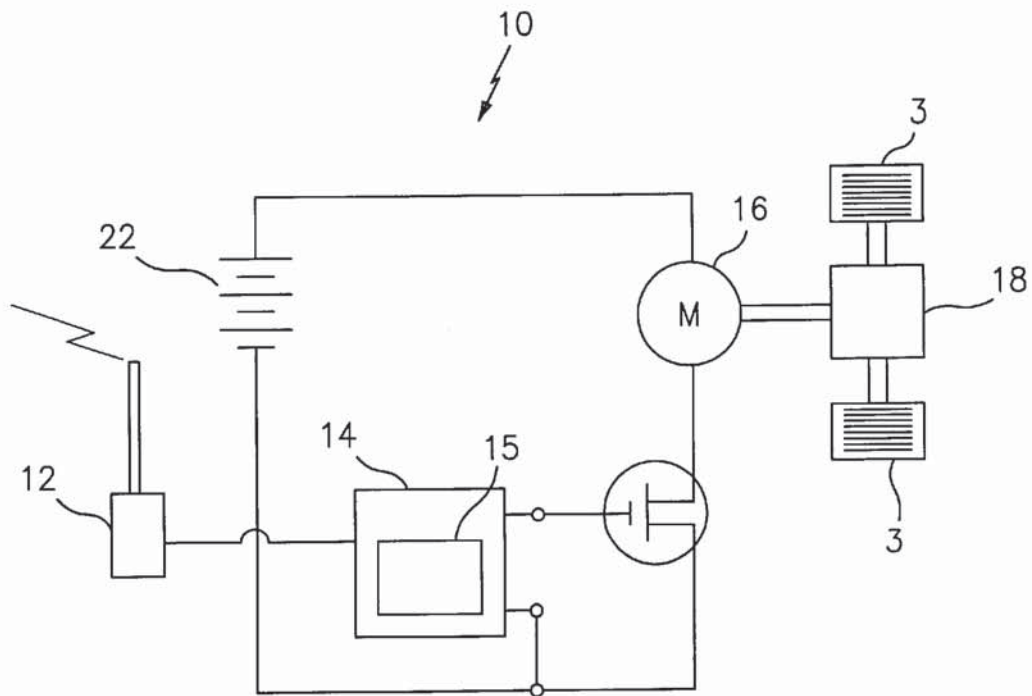
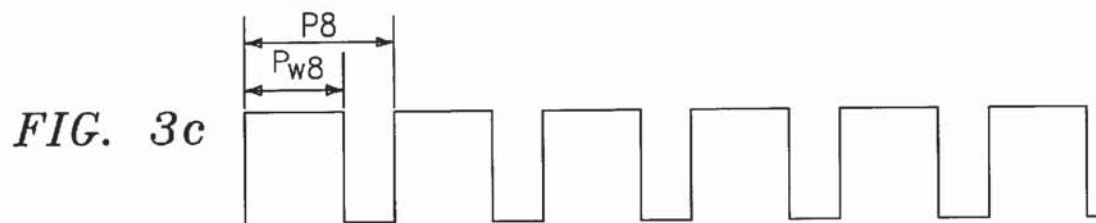
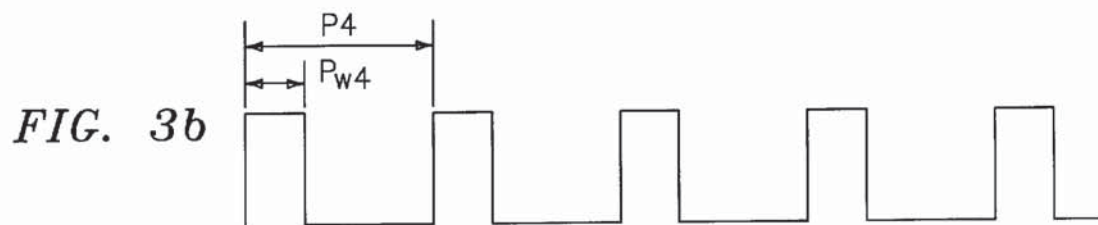
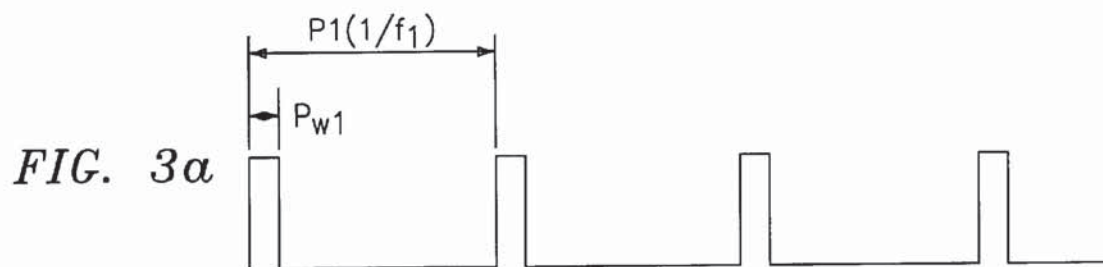


FIG. 2



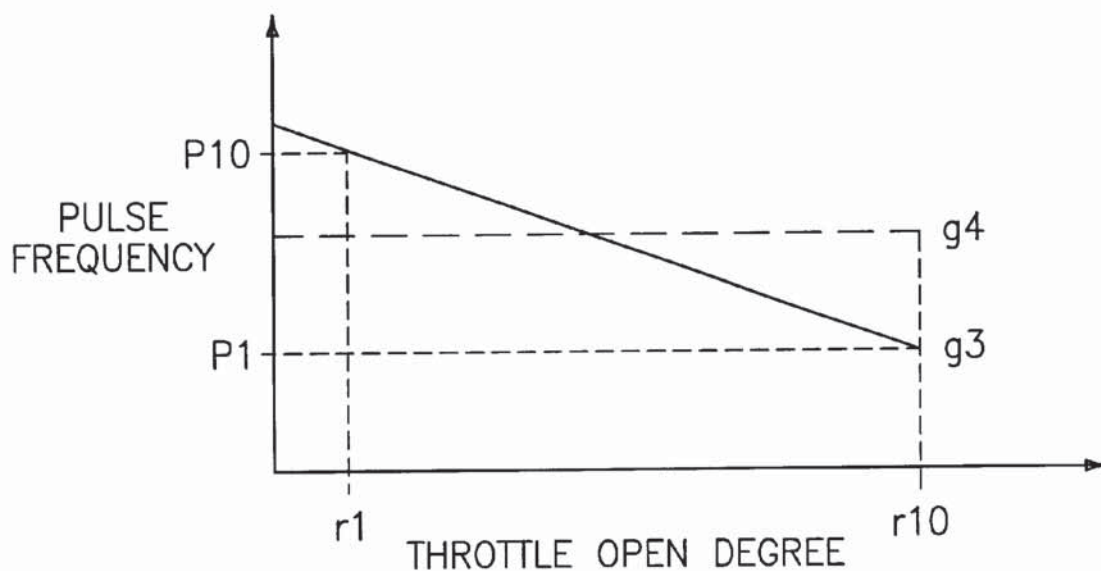


FIG. 4

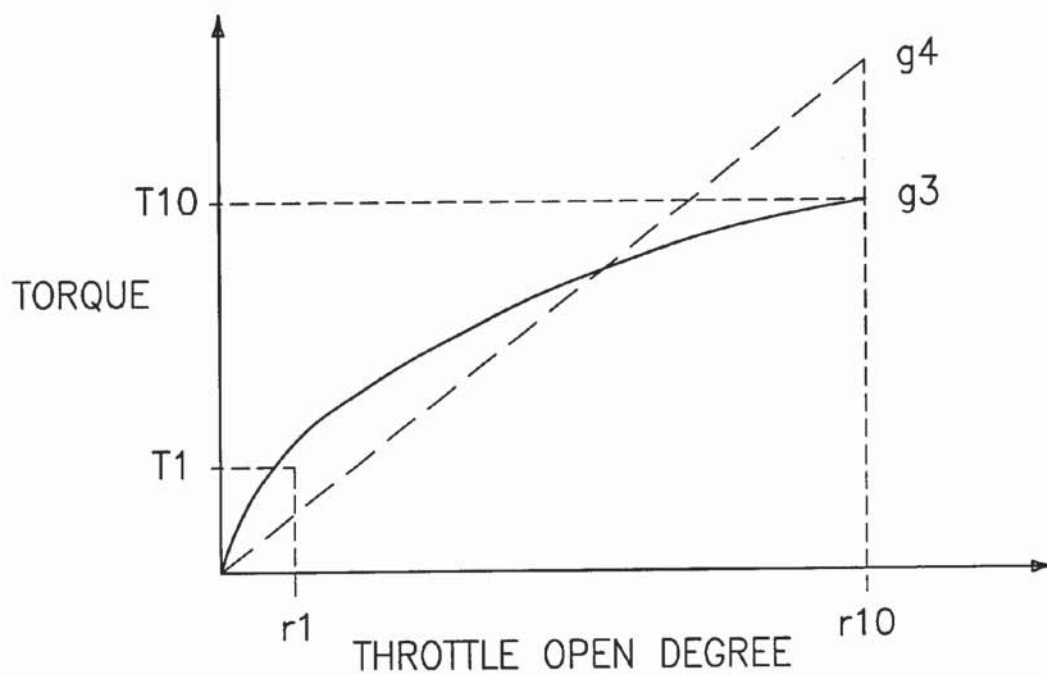


FIG. 5

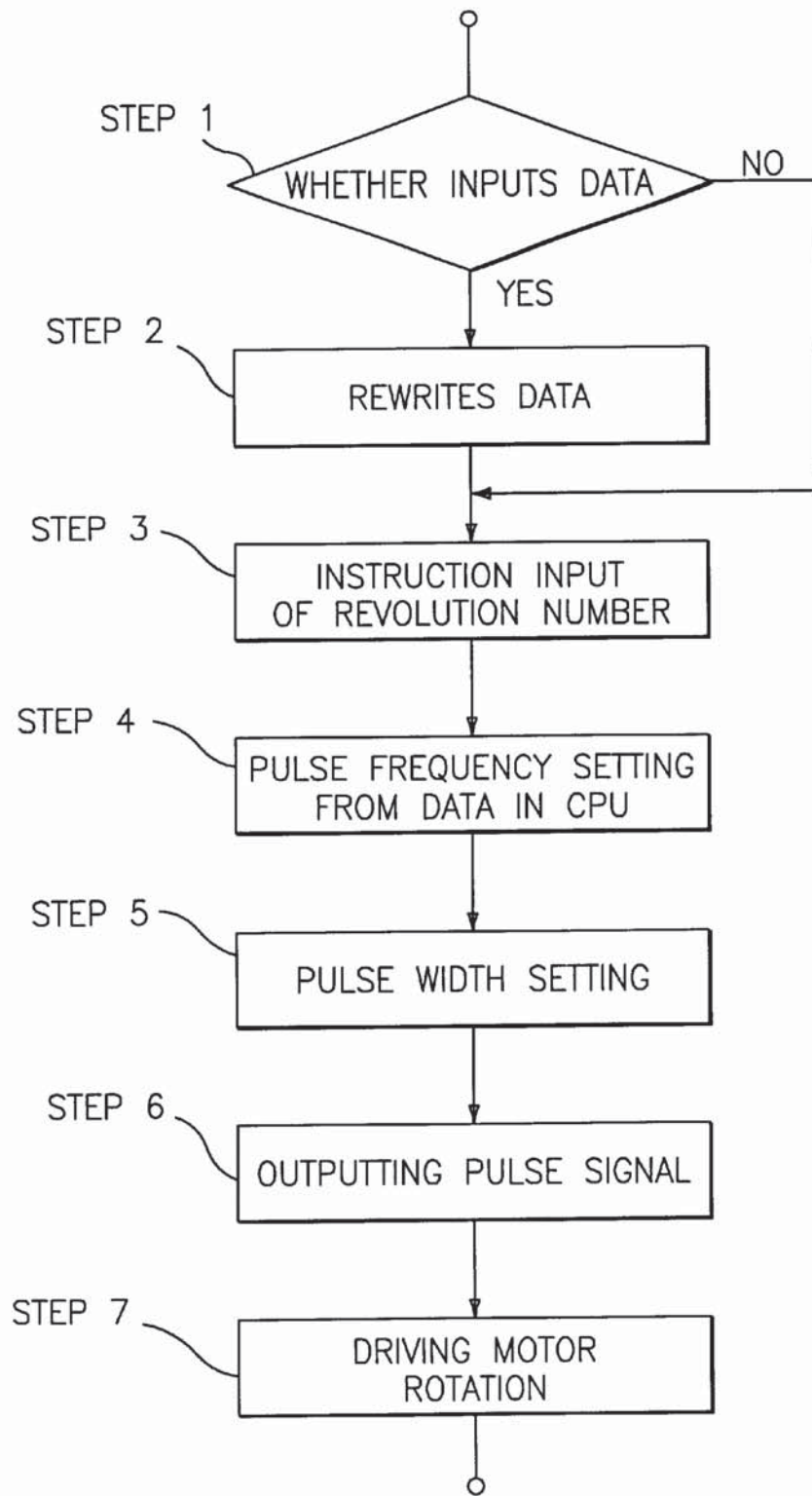


FIG. 6

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